**UNITED STATES DEPARTMENT OF AGRICULTURE**
**NATURAL RESOURCES CONSERVATION SERVICE**

# ECOLOGICAL SITE DESCRIPTION

## ECOLOGICAL SITE CHARACTERISTICS

Site Type: Forest
Site ID: F039XB001NM
Site Name: *Pseudotsuga menziesii – Populus tremuloides*
Major Land Resource Area and Common Resource Area MLRA 39 / CRA NM 2
Precipitation or Climate Zone: Southwestern New Mexico Mountains 16-25"ppt/yr.
Phase:

## ORIGINAL SITE DESCRIPTION APPROVAL:

Site Date: June 3, 2002
Site Author: Steve Lacy
Site Approval:
Approval Date:

## REVISIONS:

Revision Date:
Revisor:
Revision Approval:
Approval Date:
Revision Notes:

## PHYSIOGRAPHIC FEATURES

Narrative:

The mixed conifer community is found above 8,000 feet and prefers a north facing aspect. This forest type is found in subregion area NM-2, on the Gila National Forest. The Gila region is an area of mountains and valleys with strongly sloping to precipitous slopes in the mountains and gently to moderately sloping topography in the valleys and on the plateaus.

## LAND FORM:

1. mountain slopes
2.
3.

## ASPECT:

1. north facing
2.
3.

| | Minimum | Maximum |
|---|---|---|
| Elevation (feet) | 8,000 ft. | Above 8,000 ft. |
| Slope (percent) | 5 | 40 |
| Water Table Depth (inches) | None | |

| Flooding: | Minimum | Maximum |
|---|---|---|
| Frequency | none | |
| Duration | | |

| Ponding: | Minimum | Maximum |
|---|---|---|
| Depth (inches) | none | |
| Frequency | | |
| Duration | | |

Runoff Class:

Medium to very high.

**CLIMATIC FEATURES**

Narrative:

This area of mountains and valleys receives the majority of its annual moisture during the summer monsoon season. Additional moisture is received during winter snow events.

| | Minimum | Maximum |
|---|---|---|
| Frost-free period (days): | 80 | 130 |
| Freeze-free period (days): | | |
| Mean annual precipitation (inches): | 16.0 | 25.0 |

**Monthly moisture (inches) and temperature ($^0$F) distribution:**

| | Avg. Precip. Min. | Avg. Snowfall Total | Temp. Min. | Temp. Max. |
|---|---|---|---|---|
| January | 1.05 | 2.6 | 19.7 | 51.7 |
| February | 0.83 | 2.3 | 21.8 | 55.6 |
| March | 0.78 | 1.8 | 24.7 | 60.9 |
| April | 0.40 | 0.2 | 29.3 | 69.5 |
| May | 0.50 | - | 36.2 | 77.9 |
| June | 0.89 | - | 45.2 | 87.2 |
| July | 3.46 | - | 53.0 | 86.6 |
| August | 3.74 | - | 51.7 | 83.5 |
| September | 2.11 | - | 44.8 | 79.5 |
| October | 1.46 | 0.3 | 34.5 | 71.0 |
| November | 0.88 | 0.9 | 24.5 | 59.8 |
| December | 1.26 | 3.5 | 20.4 | 52.9 |

**Climate Stations:**

| | | | **Lat** | **Long** | | **Period** | | |
|---|---|---|---|---|---|---|---|---|
| Station ID | Mimbries Ranger Station | Location | 3256 | 10801 | From: | 1946 | To: | 1982 |
| Station ID | Mimbries Ranger Station | Location | 3256 | 10801 | From: | 1982 | To: | 1999 |
| Station ID | | Location | | | From: | | To: | |
| Station ID | | Location | | | From: | | To: | |
| Station ID | | Location | | | From: | | To: | |

**INFLUENCING WATER FEATURES**

**Narrative:**

Wetland description:

| System | Subsystem | Class |
|---|---|---|
| | | |

| If Riverine Wetland System enter Rosgen Stream Type: |
|---|
| |

**REPRESENTATIVE SOIL FEATURES**

| Narrative: |
|---|
| |

Parent Material Kind: colluvium and slope alluvium
Parent Material Origin: rhyolite and andesite

Surface Texture:

| |
|---|
| 1. |
| 2. |
| 3. |

Surface Texture Modifier:

| |
|---|
| 1. |
| 2. |
| 3. |

Subsurface Texture Group:
Surface Fragments <=3" (% Cover):
Surface Fragments >3" (% Cover):
Subsurface Fragments <=3" (%Volume):
Subsurface Fragments >=3" (%Volume):

| | Minimum | Maximum |
|---|---|---|
| Drainage Class: | well | |
| Permeability Class: | | |
| Depth (inches): | 10" | 60" |
| Electrical Conductivity (mmhos/cm): | 0 | 2 |
| Sodium Absorption Ratio: | 0 | 0 |
| Soil Reaction (1:1 Water): | | |
| Soil Reaction (0.1M CaCl2): | | |
| Available Water Capacity (inches): | | |
| Calcium Carbonate Equivalent (percent): | 0 | 1 |

**Soil survey associations:**
This ecological site is associated with the map units and soil components in the following soil surveys. Future updates to this soil survey may affect these associations. For up-to-date associations between soil components and this ecological site, refer to NASIS. Associations between ecological sites and soil components are maintained in NASIS via the ecological site ID.

MAP UNIT NAME

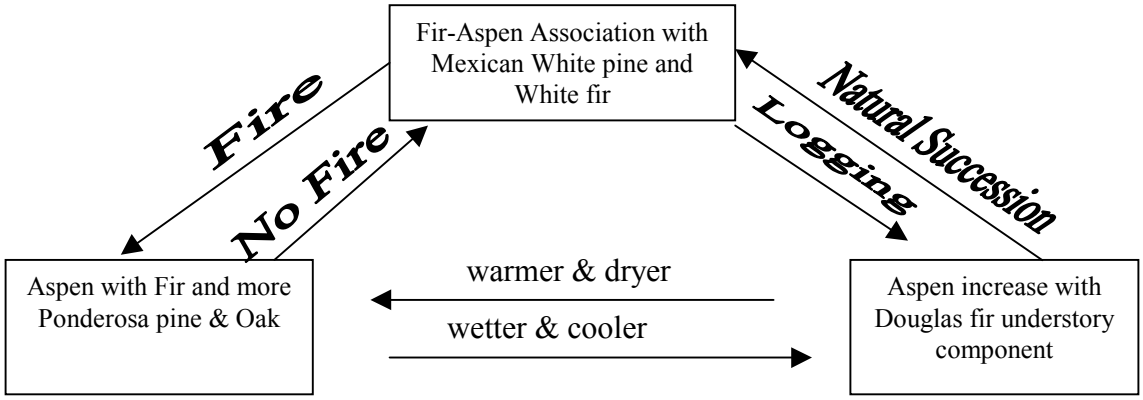
| Soil survey | Map unit symbol | Soil components |
|---|---|---|

**PLANT COMMUNITIES**

Ecological Dynamics of the Site:

The mixed conifer community occupies the mountain slopes of the Gila country above 8,000 feet. Increased amounts of available moisture on the north facing slopes leads to denser stands of Douglas fir, and Aspen. Some Ponderosa pine trees grow on sunnier and drier aspects. Other species present include Rocky Mountain Maple and Gambel oak.

Plant Communities and Transitional Pathways (diagram)



Interpretive Plant Community: _____

**Ground Cover and Structure:**

| Cover Type | Percent Ground Cover by Height Class (feet) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | <.5 | .5-1 | >1-2 | >2-4.5 | >4.5-13 | >13-40 | >40-80 | >80-120 | >120 |
| Grass/Grass Like | | | | | | | | | |
| Forb | | | | | | | | | |
| Shrub/Vine | | | | | | | | | |
| Tree | | | | | | | | | |
| Lichen | | | | | | | | | |
| Moss | | | | | | | | | |
| Litter | | | | | | | | | |
| Course Fragment | | | | | | | | | |
| Bare Ground | | | | | | | | | |

**Forest Overstory Composition:**

The typical forest overstory composition of the historic climax community.

| **Common Name** | **Scientific Name** | **Percent Composition (percent by frequency)** |
|---|---|---|
| Douglas fir | *Pseuvotsuga menziesii* | 60 |
| Quaking aspen | *Populus tremubides* | 25 |
| Ponderosa pine | *Pinus ponderosa* | 10 |
| Engelmann spruce | *Picea engelmannii* | 2 |
| Mexican White pine | *Pinus flexilis* | 1 |
| White fir | *Abies concolor* | 2 |
| | | |
| | | |

**Forest Understory Composition:**

The typical annual production of understory species to a height of 4.5 feet (excluding boles of trees) under low, high, and representative canopy covers.

| | | **Annual Production Per Acre Percent and Pounds (air-dry weight)** | | | | | |
|---|---|---|---|---|---|---|---|
| | | **Canopy Cover Percent** | | | | | |
| | | **80** | | **90** | | **100** | |
| **Common Name** | **Scientific Name** | % | lbs | % | lbs | % | lbs |
| New Mexican locust | *Robinia neomexicana* | | | | | | |
| Gambel oak | *Quercus gambelii* | | | | | | |
| Rockspirea | *Holodiscus dumosis* | | | | | | |
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**Typical Climax Community:**

Douglas fir densely covering the north facing aspects with groupings of Aspen intermixed.

**Plant Community: (as it exists today)**

Douglas fir, Ponderosa pine, with a scattering of Aspen. Other species observed consist of Southwestern white pine, Gambel oak and New Mexican locust. Ground cover is sparse and abundant needles and woody debris is present.

**Ground Cover and Structure:**

| | Percent Ground Cover by Height Class (feet) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Cover Type | <.5 | .5-1 | >1-2 | >2-4.5 | >4.5-13 | >13-40 | >40-80 | >80-120 | >120 |
| Grass/Grass Like | | | | | | | | | |
| Forb | | | | | | | | | |
| Shrub/Vine | | | | | | | | | |
| Tree | | | | | | | | | |
| Lichen | | | | | | | | | |
| Moss | | | | | | | | | |
| Litter | | | | | | | | | |
| Course Fragment | | | | | | | | | |
| Bare Ground | | | | | | | | | |

**Forest Overstory Composition:**

The typical forest overstory composition of the historic climax community.

| Common Name | Scientific Name | Percent Composition (percent by frequency) |
|---|---|---|
| Douglas fir | *Pseudotsuga menziesii* | 70 |
| Quaking aspen | *Populus tremuloides* | 15 |
| Ponderosa pine | *Pinus ponderosa* | 10 |
| Gambel oak | *Quercus gambelii* | 4 |
| Mexican White pine | *Pinus flexilis* | 1 |
| | | |
| | | |
| | | |

**Forest Understory Compostition:**

The typical annual production of understory species to a height of 4.5 feet (excluding boles of trees) under low, high, and representative canopy covers.

| | | Annual Production Per Acre Percent and Pounds (air-dry weight) | | | | | |
|---|---|---|---|---|---|---|---|
| | | Canopy Cover Percent | | | | | |
| | | 75 | | 85 | | 95 | |
| Common Name | Scientific Name | % | lbs | % | lbs | % | lbs |
| kinnikinnick | *Arctostaphylos uva-ursi* | | | | | | |
| serviceberry | *Amelanchier utahensis* | | | | | | |
| honeysuckle | *Lonicera arizonica* | | | | | | |
| raspberry | *Rubus sp.* | | | | | | |
| thimbleberry | *Rubus parviflorus* | | | | | | |
| mountain-ash | *Sorbus dumosa* | | | | | | |
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| | | | | | | | |
| Total Annual Production | | | | | | | |

**Plant Community: (as it exists today)**

ECOLOGICAL SITE INTERPRETATIONS

**Forest Site Productivity**

| | | Annual Productivity (per acre per year) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Site Index | | Cubic Feet (CMAI) | | Other Units | | |
| **Common Name** | **Scientific Name** | Low | High | Low | High | Low | High | Unit |
| Douglas fir | *Pseudotsuga* | | 70 | | | | | |
| Ponderosa pine | *Pinus ponderosa* | 65 | 70 | | | | | |
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**Soil Survey Associations:**

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| | | Map Unit Name |
|---|---|---|
| Soil Survey | Map Unit Symbol | Soil Components |

**ECOLOGICAL SITE INTERPRETATIONS**

**Animal Community:**

Mature forest species include Black bear, elk, mule deer, grouse, and squirrels.

**Plant Preference by Animal Kind:**

Animal Kind: _____

Animal Type: _____

| Common Name | Scientific Name | Plant Part | Forage Preferences | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | J | F | M | A | M | J | J | A | S | O | N | D |
| | | | | | | | | | | | | | | |
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Animal Kind: _____

Animal Type: _____

| Common Name | Scientific Name | Plant Part | Forage Preferences | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | J | F | M | A | M | J | J | A | S | O | N | D |
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**Hydrology Functions:**

Heavy canopy cover and thick duff layer acts to reduce surface impact of rainfall and helps to increase storage and infiltration of moisture. North facing aspects retain snowpack for longer periods in the spring.

**Recreational Uses:**

1. Camping
2. Hiking
3. Hunting

**Wood Products:**

Saw logs could be produced by the Douglas fir and Ponderosa pine.

**Other Products:**

**Other Information:**

## Supporting Information

Associated Sites:

| Site Name | Site ID | Site Narrative |
|---|---|---|

Similar Sites:

| Site Name | Site ID | Site Narrative |
|---|---|---|

**Inventory Data References (narrative):**

Inventory Data References:

| Data Source | Number of Records | Sample Period | State | County |
|---|---|---|---|---|

State Correlation:
This site has been correlated with the following sites: _____

Type Locality:
State: New Mexico
County: Grant
Latitude: UTM / N 07-65-252 / E 36-46-406
Longitude: _____
Township: _____
Range: _____
Section: _____

Is the type locality sensitive? Yes ☐ No ☐

General Legal Description: _____

Relationship to Other Established Classifications:

Other References: